

# ***Headquarters U.S. Air Force***

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*Integrity - Service - Excellence*

## **The PESHE – A Reviewer's Perspective**

**Abstract 8279**



**NDIA Environment, Energy, and Sustainability  
Symposium - Acquisition Track  
Denver, Colorado**

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# *Overview*

- **Purpose of Presentation**
- **Situations that Drive Information in the PESHE**
- **What is the “Reviewer’s Perspective”**
- **Some Indicators of an Effective ESOH Effort**
- **Some “Fatal” Flaws for PESHEs**
- **Some Examples from Real PESHEs**



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# ***Purpose of Presentation***

- **PESHE requirements and expectations have evolved**
- **Content of PESHEs and Service emphasis on ESOH has lagged**
- **Current circumstances and initiatives demand more attention on meeting requirements and expectations**

**Several related presentations being given during the symposium will complement this discussion**



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# ***Situations that Drive Information in the PESHE***

- **Preventable accidents of any kind reduce readiness and combat effectiveness.**
  - **May 03: SECDEF memo to reduce mishaps by 50%**
  - **Spawned three USD(AT&L) memos on ESOH processes and risk reporting**
- **Basing weapon systems is complicated by environmental impacts on the community**
  - **Jan 09: SECAF/CSAF directed review to improve basing processes including early involvement by program offices**
- **Future regulation of currently non-regulated chemicals as potential to impact readiness and operation**
  - **Apr 09: OSD memo directs elimination of Cr6+ from systems when possible; PEO approval when elimination not feasible**

**Policy and guidance for ESOH hazard identification, risk assessment, and risk acceptance within the PESHE already addresses each of these areas.**



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# ***What is the “Reviewer’s Perspective”***

***Does the PESHE address what policy requires?***

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- **Identification of ESOH Responsibilities**
- **Strategy for integrating ESOH into the SE Process**
- **Identification of ESOH Risks and their Status**
- **Method of tracking hazards throughout the life cycle**
- **Identification of Hazmats, wastes, and pollutants (discharges/emissions/noise); plans for minimization/disposal**
- **NEPA Compliance Schedule**

**Source: DoDI 5000.02, Enclosure 12, Paragraph 6**



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# ***Some Indicators of an Effective ESOH Effort***

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## **■ Identification of ESOH Responsibilities**

- Personnel with experience in each of the ESOH areas (i.e., E, S, and OH) as part of the ESOH effort**
- A description of how E, S, & OH personnel will work together as co-equal partners and who is responsible for ensuring the efforts are integrated**
- A description of the contractor's role and the Government's role in the ESOH effort and how they will interface, including the Government responsibility for risk acceptance**
- A description of how the ESOH effort will interface with the Human System Integration effort in the overlapping areas of interest**



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  - **A description of the contractor's role and the Government's role in the ESOH effort and how they will interface, including the Government responsibility for risk acceptance**
  - **A description of how the ESOH effort will interface with the Human System Integration effort in the overlapping areas of interest**
- **Strategy for integrating ESOH into the SE Process**
  - **A description of how the ESOH effort will be integrated into the overall Systems Engineering effort, including risk mitigation measures that require engineering solutions**





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# ***Some Indicators of an Effective ESOH Effort***

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- **Identification of ESOH Risks and their Status**
  - **Discussion of potential risks and known risk areas of legacy systems**
  - **Initially a plan for, and later the specific identification of, ESOH risk and their current status**



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- **Method of tracking hazards throughout the life cycle**
  - **Plans for incorporation of newly identified hazards/risks throughout the life of the program**
  - **Discussion of hazard tracking and mitigation effectiveness during sustainment**



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- **Identification of ESOH Risks and their Status**
  - Discussion of potential risks and known risk areas of legacy systems
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- **Method of tracking hazards throughout the life cycle**
  - Plans for incorporation of newly identified hazards/risks throughout the life of the program
  - Discussion of hazard tracking and mitigation effectiveness during sustainment
- **Identification of Hazmats, etc.**
  - A discussion of any major issues anticipated/identified posed by discharges, emissions, or noise. Where are hazmats, wastes, and pollutants identified?



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- **Identification of ESOH Risks and their Status**
  - Discussion of potential risks and known risk areas of legacy systems
  - Initially a plan for, and later the specific identification of, ESOH risk and their current status
- **Method of tracking hazards throughout the life cycle**
  - Plans for incorporation of newly identified hazards/risks throughout the life of the program
  - Discussion of hazard tracking and mitigation effectiveness during sustainment
- **Identification of Hazmats, etc.**
  - A discussion of any major issues anticipated/identified posed by discharges, emissions, or noise. Where are hazmats, wastes, and pollutants identified?
- **NEPA Compliance Schedule**
  - A thoughtful identification of system-related NEPA actions with the time-frame and proponents identified
  - The program office approach for communicating system-specific information relevant to NEPA actions by other proponents



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# ***Some “Fatal” Flaws for MS B PESHEs***

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- **Reciting the OSD requirements for a PESHE without a discussion of how those requirements will be implemented by the program**
  - **Following outdated formats for content**
  - **Failure to discuss plans for conducting appropriate Hazard Analyses**
  - **Asserting that the system poses no hazards**
  - **Failure to define a risk matrix tailored to the program**
  - **Describing separate efforts for “System Safety” and for “ESOH”**
  - **Invoking a Categorical Exclusion that pre-dates the PESHE, any system design, or hazard analyses**
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# ***Some “Fatal” Flaws for MS C (and Later) PESHEs***

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- **Extensive discussion of system description with little discussion of results**
- **Failure to adjust the “plan” in the Milestone B PESHE to accommodate changing ESOH policy**
- **No discussion or evidence of completed hazard analyses (especially when the PESHE states that such hazard analyses will be conducted)**
- **Hazards and their associated risks/status are not identified**
- **Failure to discuss the plan for accepting risks prior to testing events**



# ***Some Examples from Real PESHEs***

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- **Using COTS hardware as justification for no hazard analysis**
  - **“ [REDACTED] is being developed and deployed using COTS hardware and COTS/GOTS software that does not contain nor expose users to any hazardous materials (HAZMAT) under normal use.”**
- **The total explanation for how ESOH would be integrated in the SE process**
  - **“The Program Manager is responsible for integrating an effective ESOH program over the life cycle of the [REDACTED] Program.”**
- **Assuming responsibility for contractor’s internal safety program**
  - **“ [REDACTED] policy is to provide safety, health and environmental training as required by law and/or contractual requirement, to ensure that employees can perform their tasks in a safe manner, and for employee education and awareness. Employee training is primarily the responsibility of line management (supervision) with participation from [program office] ES&H [IPT] when appropriate.”**



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# ***Complementing Presentations***

<b>Date</b>	<b>Time</b>	<b>Abstract Number</b>	<b>Rm</b>	<b>Presenter</b>	<b>Title</b>
<b>Wed</b>	<b>0800</b>	<b>8210</b>	<b>501</b>	<b>Bob Smith</b>	<b>Acquisition ESOH Risk Management – How to Make it Work</b>
<b>Wed</b>	<b>1530</b>	<b>8068</b>	<b>501</b>	<b>Karen Gill</b>	<b>Hazardous Materials Management and Risk Assessment Using MIL-STD-882D</b>
<b>Wed</b>	<b>1630</b>	<b>8211</b>	<b>501</b>	<b>Kenneth Dormer</b>	<b>U.S. Air Force Technical Sufficiency Reviews of Acquisition ESOH Risk Management</b>
<b>Thurs</b>	<b>0900</b>	<b>8066</b>	<b>501</b>	<b>Dave Asiello</b>	<b>Programmatic ESOH Evaluation - DoD Requirements and Expectations</b>
<b>Thurs</b>	<b>1100</b>	<b>8209</b>	<b>501</b>	<b>Kenneth Dormer</b>	<b>Acquisition ESOH Risk Management and HAZMAT Management</b>